

LIFE SAFETY PLAN
SCALE: 1:150

CODE ANALYSIS:

1. REFERENCES:
2006 INTERNATIONAL BUILDING CODE (2006 IBC)
2006 LIFE SAFETY CODE (2006 NFPA 101)
2006 NFPA 10 – STANDARD FOR PORTABLE FIRE EXTINGUISHERS.

2. IBC OCCUPANCY CLASSIFICATION:
GROUP R-2 (NEW HOTELS AND DORMITORIES NFPA 101 6.1.8 AND CHAPTER 28)

3. TYPE OF CONSTRUCTION (IBC): TYPE II-B (UNPROTECTED/NONSPRINKLERED)

4. IBC TABLE 503: ALLOWABLE HEIGHT AND BUILDING AREAS:
GROUP R-2
ALLOWABLE AREA: 1486 SM
ALLOWABLE HEIGHT: 4 STORIES (16 M)

GROUP R-2
PROPOSED AREA: 761 SM
PROPOSED HEIGHT: 1 STORY (<16 M)

5. IBC TABLE 601 & 602: FIRE RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS FOR TYPE II-B

BUILDING ELEMENT	RATING (HOUR)	REFERENCE
STRUCTURAL FRAME (COLUMNS, GIRDERS & TRUSSES)	0	TABLE 601
BEARING WALLS EXTERIOR INTERIOR	0 0	TABLE 601 TABLE 601
NONBEARING WALLS & PARTITIONS INTERIOR	0	TABLE 601
FLOOR CONSTRUCTION	0	TABLE 601
ROOF CONSTRUCTION	0	TABLE 601
EXTERIOR WALL	0	TABLE 602

6. IBC TABLE 803.5 – INTERIOR WALL AND CEILING FINISH REQUIREMENTS FOR R-2 OCCUPANCY/NONSPRINKLERED

GROUP	EXIT ENCLOSURES AND EXIT PASSAGEWAY	CORRIDORS	ROOMS AND ENCLOSED SPACES
R-2	B	B	C

7. NFPA 101 TABLE 7.3.1.2 – OCCUPANT LOAD
HOTELS AND DORMITORIES = 18.6 SM/PERSON CALCULATED = 41 OCCUPANTS
ACTUAL = 48 OCCUPANTS
8. NFPA 101 TABLE 7.3.3.1 – EGRESS CAPACITY
HOTELS AND DORMITORIES = 5 MM PER OCCUPANT

MINIMUM REQUIRED: 240 MM (48 OCCUPANTS x 5 MM PER OCCUPANT)
PROPOSED EGRESS CAPACITY: 3600 MM: (4) 900 MM DOORS
9. NFPA 101 PARAGRAPH 28.2.6 – EXIT ACCESS TRAVEL DISTANCE
MAXIMUM ALLOWED WITHIN ROOM OR SUITE TO CORRIDOR: 23 METERS
MAXIMUM ALLOWED CORRIDOR DOOR OF ANY ROOM OR SUITE TO NEAREST EXIT: 30 METERS

PROPOSED WITHIN ROOM OR SUITE TO CORRIDOR: 4 METERS
PROPOSED CORRIDOR DOOR OF ANY ROOM OR SUITE TO NEAREST EXIT: 21 METERS
10. NFPA 101 PARAGRAPH 28.3.6.1.2 – CORRIDOR FIRE-RESISTANCE RATING (HOUR)
REQUIRED: WALLS NOT LESS THAN ONE HOUR FIRE RESISTANCE RATING
PROPOSED: 1 HOUR RATING
11. NFPA 101 PARAGRAPH 28.3.6.2 & TABLE 8.3.4.2 – DOORS INTO EXIT ACCESS CORRIDORS
REQUIRED MINIMUM: 20 MINUTE FIRE PROTECTION RATING
PROPOSED: 20 MINUTE DOORS
12. NFPA 101 PARAGRAPH 28.2.3.3 – CORRIDOR WIDTH
REQUIRED: SUFFICIENT FOR OCCUPANT LOAD, BUT NOT LESS THAN 1120 MM
CALCULATED WIDTH REQUIRED PER OCCUPANT LOAD: 240 MM (48 OCCUPANTS x 5 MM)
PROPOSED: 1700 MM
13. NFPA 101 PARAGRAPH 28.2.5.3 – COMMON PATH OF TRAVEL
MAXIMUM ALLOWED: 10.7 METERS
PROPOSED: 10.7 M
14. NFPA 101 PARAGRAPH 28.2.5.5 – DEAD END CORRIDORS
PERMITTED: 10.7 METERS
PROPOSED: NO DEAD END CORRIDORS
15. NFPA 101 PARAGRAPH 28.2.4.1 AND 7.4.1.1 – MINIMUM NUMBER OF EXITS
REQUIRED: 2 MINIMUM
PROPOSED: 3 EXITS
16. NFPA 101 PARAGRAPH 28.2.1.2 & 24.2 – SECONDARY MEANS OF ESCAPE
ONE OF THE FOLLOWING REQUIRED:
1) DOOR, SIMILAR TO PRIMARY, BUT REMOTE FROM PRIMARY
2) OPERABLE WINDOW, 0.53 SM, NOT LESS THAN 510 MM WIDE, 610 MM HIGH, NOT MORE THAN 1120 MM AFF, WITHIN 6100 MM OF GRADE
PROPOSED: OPERABLE WINDOWS, 0.93 SM EACH PER SLEEPING ROOM

17. NFPA 101 PARAGRAPH 24.2.2.4 – TWO PRIMARY MEANS OF ESCAPE
AREA WITH DWELLING UNIT EXCEEDS 185 SM PER STORY
ALLOWED AREA PER STORY WITHIN DWELLING UNIT: 185 SM
PROPOSED AREA WITHIN DWELLING UNIT: 14 SM
REQUIRED PRIMARY EXITS: 1
PROPOSED PRIMARY EXITS: 1
18. NFPA 101 PARAGRAPH 28.3.7.1 – SUBDIVISION OF BUILDING SPACES – NONSPRINKLERED
REQUIRED: EACH GUEST ROOM OR DORMITORY ROOM SHALL BE SEPARATED FROM OTHER GUEST OR DORMITORY ROOMS BY FIRE BARRIERS HAVING FIRE RESISTANCE RATED OF NOT LESS THAN 1 HOUR
PROPOSED: 1 HOUR SEPARATION
19. HAZARDOUS AREA PROTECTION TABLE 28.3.2.2.2
STORAGE ROOMS: 1 HOUR SEPARATION REQUIRED
PROPOSED: NOT APPLICABLE
20. NFPA 101 A.3.3.5.3 DORMITORY: ROOMS WITHIN DORMITORIES INTENDED FOR THE USE OF INDIVIDUALS FOR COMBINED LIVING AND SLEEPING PURPOSES ARE GUEST ROOMS OR GUEST SUITES. EXAMPLES OF DORMITORIES ARE COLLEGE DORMITORIES, FRATERNITY AND SORORITY HOUSES AND MILITARY BARRACKS.
21. NFPA 101 28.3.5.2 EXTINGUISHMENT REQUIREMENTS: AUTOMATIC SPRINKLER PROTECTION REQUIRED UNLESS SLEEPING ROOMS HAVE DOORS DIRECTLY TO OUTSIDE.
DUE TO AUSTERE DESIGN CRITERIA, THE GOVERNMENT WILL WAIVE THIS REQUIREMENT.

- LEGEND:**
- ▶▶▶ DENOTES PATHS OF EXIT TRAVEL
- EXIT DENOTES DOOR AS AN EMERGENCY EXIT
- ◆ DENOTES STARTING POINT FOR TRAVEL DISTANCE
- ☺ DENOTES FIRE EXTINGUISHER LOCATIONS
- 1- HOUR RATED WALL



Rev.	Date	Design	File no.	Drawing code	File name	Plot date	Plot scale
0	5/19/10				AF1024C-4R001P1	2010/05/08	

Designed by:	Dim by:	Reviewed by:	Submitted by:

U.S. ARMY ENGINEER DISTRICT, AFGHANISTAN
CORPS OF ENGINEERS
APO AE 96338

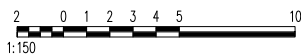
STANDARD DESIGN VARIOUS LOCATIONS, AFGHANISTAN OFFICER BARRACKS LIFE SAFETY PLAN

SHEET REFERENCE NUMBER: C A-001

APPROVED:

A/E DESIGNER OF RECORD

B3



UNLESS NOTED OTHERWISE, LINEAR DIMENSIONS SHOWN ARE IN MILLIMETERS.